CLAIMS:

1. A method of sending packets between ports on trunked network switches, said method comprising:

providing a first switch having a plurality of communication ports thereupon;

providing a second switch having a plurality of communication ports thereupon;

providing a trunk connection between said first switch and said second switch comprising at least two of said plurality of ports from said first switch being connected at least two of said plurality of ports of said second switch;

sending a packet from a first port on said first switch to a second port on said second switch;

receiving said packet at an ingress submodule of said first switch, and performing a lookup on one of a source address and destination address of the packet based upon a lookup table provided in said ingress submodule;

identifying that the first switch and the second switch are connected with the trunk connection by a trunk bit in a lookup entry of the lookup table matched by the destination address;

identifying a rules tag in the lookup entry;

identifying a trunk group identification in the lookup entry;

determining a trunk port index based upon the rules tag;

applying the trunk group identification and the trunk port index to a trunk group table, thereby identifying a trunk port for communication;

storing the packet in memory; and

retrieving the packet from memory with an egress unit, and forwarding the packet to the identified trunk port.

2. A method as recited in claim 1, wherein said rules tag defines that bits of at least one of a source MAC address and a destination MAC address are used to determine the trunk port index.

3. A method as recited in claim 1, wherein said rules tag defines that bits of at least one of a source IP address and a destination IP address are used to identify the trunk port index.

4. A method as recited in claim 1, wherein said lookup table includes a plurality of entries contained therein, and wherein each entry includes a bit which indicates whether or not the entry is to be handled by a trunk group or a non-trunk group.

5. A method as recited in claim 1, said method further comprising:

detecting a link failure when a trunk port fails;

sending a notification message to a CPU regarding the failure; and

modifying the trunk group table to reflect that the trunk port is no longer available for communication.

6. A method as recited in claim 5, further comprising:

providing a trunk group port bit map table;

after the notification message is sent to the CPU regarding the failure, modifying the trunk group port bit map table to reflect that the port is no longer available for communication.

7. A method as recited in claim 6, further comprising:

detecting when a link which caused the link failure is reestablished;

notifying the CPU regarding detection of reestablishment of the link;

reconfigurating at least one of the trunk group table and the trunk group bit map table so as to reflect reestablishment of the link.

8. A method as recited in claim 1, further comprising selectively disabling at least one port of said plurality of ports, such that selected packet types are blocked from being transmitted on the selectively disabled port.

9. A method as recited in claim 8, wherein selectively disabling at least one of the ports includes a step of setting a disabling bit in a PVLAN table, whereby, so that when a packet is applied to the PVLAN table, a corresponding bit in the packet is set or unset in accordance with the PVLAN table.

10. A method as recited in claim 8, wherein selectively disabling the at least one port includes a step of disabling at least one port for a selected packet type to direct control packets to a single port of the trunk group.

11. A system for sending packets between ports on trunked network switches, said system comprising:

first switch means having a plurality of communication ports thereupon;

second switch means having a plurality of communication ports thereupon;

a trunk connection between said first switch means and said second switch means, said trunk connection comprising at least two of said plurality of ports from said first switch means being connected to at least two of said plurality of ports of said second switch means;

sending means for sending a packet from a first port of said first switch means to a second port of said second switch means;

an ingress submodule in said first switch means for receiving said packet and for performing an address resolution lookup on one of a source address and destination address of the packet based upon a lookup table provided in the ingress submodule;

first identifying means for identifying that the first switch means and second switch means are connected with the trunk connection, said first identifying means including a trunk bit in a lookup entry of the lookup table being matched by the destination address;

second identifying means for identifying a rules tag in the lookup entry;

determining means for determining which rule of a series of rules will be used to define a trunk port index which is used to identify which port of the trunk connection will be used for communication;

storing means for storing the packet in a memory; and

retrieving means for retrieving the packet from the memory with an egress unit, and forwarding the packet to the identified trunk port.

12. A system as recited in claim 11, wherein said second identifying means is configured to analyze the rules tag to identify that bits of at least one of a source MAC address and a destination MAC address which are used to identify a trunk port index, said ingress module also identifying a trunk group identification in the address resolution lookup, said trunk group identification and said trunk port index being applied to a trunk group table, thereby identifying a trunk port for communication.

13. A system as recited in claim 11, wherein said second identifying means is configured to analyze the rules tag to identify that it is bits of at least one of a source IP address and a destination IP address to identify a trunk port index, said ingress module also identifying a trunk group identification in the address resolution lookup, said trunk group identification and said trunk port index being applied to a trunk group table, thereby identifying a trunk port for communication.

14. A system as recited in claim 11, wherein said second identifying means is configured to analyze the rules tag to identify that it is the last three bits of at least one of a source MAC address, a destination MAC address, a source IP address, and a destination IP address, to identify a trunk port index, and wherein said trunk port index and said trunk group identification being applied to a trunk group table, thereby identifying a trunk port for communication.

15. A system as recited in claim 12, said system further comprising:

detecting means for detecting a link failure when a trunk port fails;

sending means for sending a notification message to a controller regarding the failure; and

modifying means for modifying the trunk group table to reflect that the port is no longer available for communication.

16. A system as recited in claim 15, said system further comprising:

detecting means for detecting when a link which caused the link failure is reestablished;

notifying means for notifying the sending means regarding the restoration of communication; and

restoring means for restoring the trunk group table to reflect the reestablishment of the link.

17. A system as recited in claim 6, further comprising selective disabling means for selectively disabling at least one port of the plurality of ports, such that selected packet types are blocked from being transmitted on the selectively disabled port.

18. A system as recited in claim 17, wherein said selective disabling means includes setting means for setting a disabling bit in the lookup table, whereby, so that when a packet is applied to the lookup table, a corresponding bit in the packet is set or unset in accordance with the lookup table.

19. A system as recited in claim 17, wherein said selective disabling means selectively disables a plurality of ports so as to direct control packets to a single port of the trunk group.

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